

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please **AMEND** claims 1-19 in accordance with the following:

Claim 1 (Currently Amended): A method of seamlessly reproducing a plurality of data streams ~~that include~~ including data packets packet data with arrival time stamps (ATSS) ~~recorded on a storage medium determined to be unrelated to each other~~, the method comprising:

determining if successive data streams for seamless reproduction include data packets with arrival time stamps (ATSS) that are unrelated with each other;

if the successive data streams for seamless reproduction include data packets with arrival time stamps (ATSS) that are unrelated with each other, generating control information for controlling output times of the plurality of data streams for seamless reproduction; reproducing a current data stream and calculating a reference time value used to adjust an arrival time stamp (ATS) of a first data packet of a next data stream so as to allow the next data stream to be reproduced immediately after reproduction of the current data stream without a pause; and

continuously reproducing the plurality of the next data streams based on the generated control information; reference time value.

Claim 2 (Currently Amended): The method of claim 1, further comprising:
resetting a counter using a reproduction gap value that is a difference between the calculated reference time value and an arrival time stamp (ATS) of a last data packet of the current data stream, so that the next data stream is reproduced immediately after reproduction of the current data stream without a pause, based on a reset counter value; wherein the control information specifies a reference time value and one of a reproduction gap length value and an offset value.

Claim 3 (Currently Amended): The method of claim 21, further comprising:
adjusting arrival time stamps (ATSs) of data packets of the next data stream using an offset value between the calculated reference time value and an arrival time stamp (ATS) of a first data packet of the next data stream, so that the next data stream is reproduced immediately after reproduction of the current data stream without a pause, based on adjusted ATSs wherein the reference time value is obtained by

adjusting an arrival time stamp of first packet data of a current data stream so that the current data stream is reproducible immediately after reproduction of a previous data stream without a pause.

Claim 4 (Currently Amended): The method of claim 32, wherein the reproduction gap value is a time value indicating an interval of time between reproduction of the last data packet data of the previous current data stream and the first data packet data of the current next data stream.

Claim 5 (Currently Amended): The method of claim 4, wherein the reproduction gap value is obtained by calculating a difference between the calculated reference time value and an arrival time stamp (ATS) value of the last data packet data of the previous current data stream.

Claim 6 (Currently Amended): The method of claim 3, wherein the offset value is added to the arrival time stamp value (ATS) of each data packet data of the current next data stream so that the current next data stream can be reproduced immediately after reproduction of the previous current data stream without a pause.

Claim 7 (Currently Amended): The method of claim 6, wherein the offset value is obtained by calculating a difference between the calculated reference time value and the arrival time stamp value (ATS) of the first data packet data of the current next data stream.

Claim 8 (Currently Amended): An apparatus for seamlessly reproducing a plurality of data streams of data packets that include packet data with arrival time stamps determined to be unrelated to each other, the apparatus comprising:

a reproduction controller which reads ~~the plurality of successive~~ data streams from a storage medium;

a counter which is driven in response to a system clock signal and reset based on the arrival time stamp (ATS) of a first data packet data of each of the ~~plurality of successive~~ data streams read by the reproduction controller;

an arrival time stamp processor which removes the arrival time stamps (ATSs) from the data packets packet data of the ~~plurality of successive~~ data streams and which outputs only the packet-data packets; and

a controller ~~which~~ arranged to determine if the successive data streams include data packets with arrival time stamps (ATSs) that are unrelated to each other and, if the successive data streams include data packets with arrival time stamps (ATSs) that are unrelated with each other, to control reproduction of a current data stream and a next data stream immediately after reproduction of the current data stream without a pause, based on a reference time value used to adjust an arrival time stamp (ATS) of a first data packet of the next data stream generates control information for controlling output time of the respective packet data for seamless reproduction of the plurality of data streams, and controls operation of the counter or the arrival time stamp processor based on the control information.

Claim 9 (Currently Amended): The apparatus of claim 8, wherein the control information specifies a reference time value and one of reproduction a gap length value and an offset value controller is further configured to reset the counter using a reproduction gap value that is a difference between the calculated reference time value and an arrival time stamp (ATS) of a last data packet of the current data stream, so that the next data stream is reproduced immediately after reproduction of the current data stream without a pause, based on a reset counter value.

Claim 10 (Currently Amended): The apparatus of claim 9, wherein the reference time value is obtained by adjusting an arrival time stamp of first packet data of a current data stream so that the current data stream is reproducible immediately after reproduction of a previous data stream without a pause controller is further configured to adjust arrival time stamps (ATSs) of data packets of the next data stream using an offset value between the calculated reference time value and an arrival time stamp (ATS) of a first data packet of the next

data stream, so that the next data stream is reproduced immediately after reproduction of the current data stream without a pause, based on adjusted ATSS.

Claim 11 (Currently Amended): The apparatus of claim 409, wherein:
the reproduction gap value is a time value indicating an interval of time between reproduction of the last data packet data of the previouscurrent data stream and the first data packet data of the currentnext data stream, and
the controller ~~transmits a control signal indicating when resets~~ the counter must be reset, ~~to the counter for~~ seamless reproduction of the plurality of successive data streams, ~~the control signal being obtained by combining based on~~ an arrival time stamp (ATS) of the last data packet data of the previouscurrent data stream and the reproduction gap value.

Claim 12 (Currently Amended): The apparatus of claim 11, wherein the reproduction gap value is obtained by calculating a difference between the reference time value and an arrival time stamp (ATS) ~~value~~ of the last data packet data of the previouscurrent data stream.

Claim 13 (Currently Amended): The apparatus of claim 4410, wherein:
the controller adds the offset value ~~is added to~~ the arrival time stamp (ATS) value of each data packet data of the currentnext data stream so that the currentnext data stream is reproducible immediately after reproduction of the previouscurrent data stream without a pause, and

the controller changes an arrival time stamp value(ATS) of the first data packet data of the currentnext data stream into the reference time value, changes arrival time stamps (ATSS) values of the remaining data packets packet data by adding the offset value to the arrival time stamps (ATSS) values, and provides ~~the changed arrival time stamps values~~ (ATSS) to the arrival time stamp processor.

Claim 14 (Currently Amended): The apparatus of claim 13, wherein the offset value is obtained by calculating a difference between the reference time value and the arrival time stamp (ATS) value of the first data packet data of the currentnext data stream.

Claim 15 (Currently Amended): A computer readable medium having stored thereon instructions which, when executed by a processor of a computer system, cause the processor to perform a method of ~~for~~ seamlessly reproducing a plurality of stream objects comprising packet data and an arrival time stamp, the computer-readable medium-method comprising instructions which:

determining if successive data streams include data packets with arrival time stamps (ATSs) that are unrelated to each other;

if the successive data streams include data packets with arrival time stamps (ATSs) that are unrelated with each other, reproducing a current data stream and then reproducing a next data stream immediately after reproduction of the current data stream without a pause, based on a reference time value used to adjust an arrival time stamp (ATS) of a first data packet of the next data stream.

~~instruct a processor to adjust an arrival time stamp of first packet data of a current stream object based on a reference time and one of a gap length value and an offset value; and~~

~~instruct the processor to reproduce the current data stream immediately after a previous data stream without a pause based on the adjusted arrival time stamp.~~

Claim 16 (Currently Amended): The computer readable medium of ~~claim~~ claim 15, wherein further comprising instructions which:

~~instruct the processor to determine the gap length value is determined as an interval of time between reproduction of a last data packet data of the previous~~ current ~~data stream and the first data packet data of the current~~ next ~~data stream.~~

Claim 17 (Currently Amended): The computer readable medium of claim 16, ~~further comprising instructions which~~ wherein:

~~instruct the processor to determine the gap length value is determined by calculating a difference between the reference time value and an arrival time stamp (ATS) value of a last data packet data of the previous~~ current ~~data stream.~~

Claim 18 (Currently Amended): The computer readable medium of claim 15, ~~further comprising instructions which~~ wherein:

~~instruct the processor to add the offset value is added to the arrival time stamp~~

(ATS) value of each data packet data of the current-next data stream.

Claim 19 (Currently Amended): The computer readable medium of claim 18, ~~further comprising instructions which~~ wherein :

~~instruct the processor to determine the offset value~~ is determined by calculating a difference between the reference time value and the arrival time stamp (ATS) value of the first data packet data of the current-next data stream.